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Non Invasive Imaging (Echocardiography, Nuclear, PET, MR and CT)

LONG-TERM PROGNOSTIC SIGNIFICANCE OF CORONARY ARTERY CALCIUM SCORES IN WOMEN AND MEN WITH A LOW-INTERMEDIATE FRAMINGHAM RISK SCORE

Poster Contributions
Poster Hall B1
Saturday, March 14, 2015, 3:45 p.m.-4:30 p.m.

Session Title: Non Invasive Imaging: CT/Multimodality, Angiography, and Non-CT Angiography
Abstract Category: 16. Non Invasive Imaging: CT/Multimodality, Angiography, and Non-CT Angiography
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Background: It is well established that the Framingham Risk Score (FRS) underestimates risk in women. Coronary artery calcium (CAC) scoring improves risk reclassification beyond the FRS in women and men. The primary aim of this analysis was to compare 15-year mortality by CAC in a cohort of 2,363 asymptomatic women and men with a low-intermediate FRS (6-9.9% 10 year predicted risk).

Methods: We estimated all-cause mortality (n=159) using Cox proportional hazards models; hazard ratios (HR) with 95% confidence intervals (CI) were calculated.

Results: There were 1,072 low-intermediate risk women who were older (55.6 years) as compared to the 1,291 low-intermediate risk men (46.7 years, p<0.0001). In this cohort, a greater prevalence and extent of CAC was observed among women; 18.9% of women and 15.1% of men had a CAC score ≥100 (p=0.029). Women had a 1.44-fold higher 15-year mortality as compared to men (p=0.022). For women, CAC scores had 15-year mortality ranging from 5.8% for CAC score of 0 to 30.5% for a CAC score ≥400 (p<0.001). For men, CAC scores had 15-year mortality ranging from 4.0% for CAC score of 0 to 14.0% for a CAC score ≥400 (p<0.001). For CAC scores ≥400, women had a 2.77-fold (95% CI 1.04-7.38) higher mortality as compared to men (p=0.04).

Conclusion: Women with low-intermediate FRS scores have a sizeable burden of CAC that accelerates risk. Clinical practice guidelines should be revised to reduce the threshold for screening to include low-intermediate risk women (6-9.9% FRS)

All-Cause Mortality % by CAC in Men and Women with Low-Intermediate FRS